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## **DEPARTMENT OF THE INTERIOR**

### **Fish and Wildlife Service**

#### **50 CFR Part 17**

**[Docket No. FWS–R1–ES–2007–0024]**

**[FXES11130900000C6–145–FF09E42000]**

**RIN 1018-AU96**

### **Endangered and Threatened Wildlife and Plants; Removing the Hawaiian Hawk From the Federal List of Endangered and Threatened Wildlife**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule; document availability and reopening of comment period.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce the reopening of the public comment period on the August 6, 2008, proposed rule to remove the Hawaiian hawk or Io (*Buteo solitarius*) from the List of Endangered and Threatened Wildlife (List) under the Endangered Species Act of 1973, as amended (Act). Comments

submitted during the 2008 comment period and 2009 reopened comment periods do not need to be resubmitted, and will be fully considered in preparation of our final rule.

However, we invite comments on the new information presented in this document relevant to our consideration of the status of Hawaiian hawk. We encourage those who may have commented previously to submit additional comments, if appropriate, in light of this new information. Further, we are again making available for public review the draft post-delisting monitoring plan for the Hawaiian hawk, and we invite comments on that draft plan.

**DATES:** The comment period for the proposed rule published August 6, 2008, at 73 FR 45680 is reopened. To ensure that we are able to consider your comments and information, they must be received or postmarked no later than **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Please note that, if you are using the Federal eRulemaking Portal (see **ADDRESSES**, below), the deadline for submitting an electronic comment is 11:59 p.m. Eastern Time on this date. We may not be able to address or incorporate information that we receive after the above requested date.

**ADDRESSES:** *Document availability:* Electronic copies of the 2008 proposed delisting of the Hawaiian hawk, comments received, and the draft post-delisting monitoring plan (draft PDM Plan) can be obtained from the websites <http://www.regulations.gov> (under Docket No. FWS–R1–ES–2007–0024) or <http://www.fws.gov/pacificislands>. To request a hardcopy of the proposed rule or the draft PDM Plan, write to: Field Supervisor,

Attention: Hawaiian Hawk Proposed Delisting/Draft PDM Plan, Pacific Islands Fish and Wildlife Office, U.S. Fish and Wildlife Service, 300 Ala Moana Boulevard, Rm. 3-122, Honolulu, HI 96850; or call 808-792-9400; or send an e-mail request to *jay\_nelson@fws.gov*.

*Written comments:* You may submit comments and information by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

*<http://www.regulations.gov>*. Search for docket number FWS–R1–ES–2007–0024. Please ensure you have found the correct document before submitting your comments.

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R1–ES–2007–0024; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

We will post all comments and information we receive on *<http://www.regulations.gov>*. This generally means that we will post any personal information you provide us (see the **Public Comments** section below for more details).

**FOR FURTHER INFORMATION CONTACT:** Loyal Mehrhoff, Field Supervisor, Pacific Islands Fish and Wildlife Office, 300 Ala Moana Boulevard, Room 3-122, Honolulu, HI 96850; telephone (808–792–9400); or facsimile (808–792–9581). If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800–877–8339.

## **SUPPLEMENTARY INFORMATION:**

### **Previous Federal Actions**

The Hawaiian hawk was added to the U.S. Department of the Interior's list of endangered species on March 11, 1967 (32 FR 4001), in accordance with section 1(c) of the Endangered Species Preservation Act of October 15, 1966 (80 Stat. 926; 16 U.S.C. 668aa(c)). Its status as an endangered species was retained under the Endangered Species Act of 1973, as amended (Act; 16 U.S.C. 1531 *et seq.*). A recovery plan for the Hawaiian hawk was published on May 9, 1984 (Service 1984).

The Service published a proposed rule to reclassify the Hawaiian hawk from endangered to threatened on August 5, 1993 (58 FR 41684), based on Griffin's (1985, p. 25) preliminary population estimate of 1,400 to 2,500 adult birds and because it was discovered that the species occupied, and nested in, nonnative forests and exploited nonnative prey species as a food resource. However, the proposal was not finalized; during the comment period, several commenters expressed concerns that the population data used in the proposal were not current and there was not enough known about the hawk's breeding success to warrant downlisting. In response, in 1997, the Service formed the Io Recovery Working Group (IRWG), the mission of which was to provide oversight and advice on aspects of the recovery of the Hawaiian hawk.

On February 3, 1997, we received a petition from the National Wilderness Institute to delist the Hawaiian hawk. We responded to that petition in a letter dated June

19, 1998, indicating that we could not immediately work on the petition due to higher priority listing and delisting actions.

We published a proposed rule to delist the Hawaiian hawk, due to recovery, on August 6, 2008, with a 60-day comment period that closed October 6, 2008 (73 FR 45680). The proposed delisting was based on several studies that had shown the range-wide population estimates had been stable for at least 20 years and this species was not threatened with becoming endangered throughout all or a significant portion of its range in the foreseeable future.

We made available the draft post-delisting monitoring plan for the Hawaiian hawk (draft PDM plan) on February 11, 2009 (74 FR 6853), with a 60-day comment period that closed April 13, 2009. In that same document, we reopened the comment period for the proposed delisting rule for 60 days, also ending April 13, 2009.

We published a schedule of public hearings on the proposed rule on June 5, 2009 (74 FR 27004), to allow interested parties an opportunity to comment on the proposed rule and draft PDM plan, and we reopened the proposal's comment period for another 60 days, ending August 4, 2009. We held public hearings on June 30, 2009, in Hilo, Hawaii, and on July 1, 2009, in Captain Cook, Hawaii.

## **Background**

In this document, we will only discuss new information pertinent to the proposed delisting of the Hawaiian hawk. For a more detailed description of the Hawaiian hawk, its status, its threats, and a summary of factors affecting the species, please refer to the

August 6, 2008, proposed rule to delist the species (73 FR 45680; see **ADDRESSES**) and the recovery plan ([http://ecos.fws.gov/docs/recovery\\_plan/840509.pdf](http://ecos.fws.gov/docs/recovery_plan/840509.pdf)). During the comment periods and public hearings following the August 6, 2008, proposed rule to delist the species, we received comments from 3 independent biologists with expertise in the ecology of the Hawaiian hawk, 5 comments from State of Hawaii and county agencies, and 118 comments from the general public.

### **New Information**

During the comment periods, we received new or updated information on projected urban growth rates and conversion of agriculture lands to unsuitable hawk habitat, both of which we previously identified and analyzed in the proposed rule. Also, we received more information on the potential effects of climate change on Hawaiian hawk habitat. The majority of relevant information that has become available since our 2008 proposal to delist the Hawaiian hawk is from public comments, recent publications, and further evaluation of existing information.

We funded an island-wide survey of Hawaiian hawks that was completed in the summer of 2007 to determine if there had been any population change since 1998 to 1999 and to better understand possible regional differences in hawk density, habitat use, and habitat quality (Gorresen *et al.* 2008). Island-wide survey results were summarized in the August 6, 2008, proposed rule (73 FR 45680). To evaluate possible regional differences in hawk density and habitat use, the researchers divided the hawk's range into four

regions: Hamakua, Puna, Kau, and Kona, based on a combination of climatic, geological, and vegetation factors and contiguity in land cover.

Habitat and region were found to be significantly associated with Hawaiian hawk density (Gorresen *et al.* 2008, p. 15). Rankings of combined 1998 and 2007 hawk densities showed that Puna supported lower hawk numbers generally for all habitats compared to other regions (Gorresen *et al.* 2008, p. 16). In the Kona region, mature native forest and mature native forest with grass understory had greater hawk densities than areas dominated by orchards, shrubland, pioneer native forest, and urban habitats (Gorresen *et al.* 2008, p. 15). Native-exotic forest in Hamakua had more than four times the hawk density than similar habitats in Puna, while mature native forest in Kona supported greater densities of hawks than the same habitat in Puna (Gorresen *et al.* 2008, p. 15).

The researchers delineated the Hawaiian hawk's breeding range by mapping mid-to tall-stature wet to mesic native and exotic forest, and foraging habitat available within 1 mile (mi) (2.86 kilometers (km)) of forest patches (distance to foraging habitat was based on the diameter of the largest adult hawk home range) (Gorresen *et al.* 2008, p. 11). The resulting 2,221-square-mile (sq-mi) (5,755-square-kilometer (sq-km)) breeding range included all hawks detected during the 1998 to 1999 and 2007 surveys, and was approximately 6 percent smaller than the usable habitat area for hawks determined by Klavitter *et al.* (2003, p. 170).

We examined trends in human population, urban and exurban growth, and land subdivision over the past three decades for Hawaii County to better understand the history of habitat change on Hawaii and the potential effects of these factors on Hawaiian

hawk habitat and density in the future. The Hawaii Department of Business, Economic Development and Tourism (HDBEDT 2012) projected the population of Hawaii County to grow 1.6 percent annually from 2010 to 2040, a 32 percent population increase over 20 years.

The number of private residential construction permits issued annually by Hawaii County for single-family dwellings more than doubled from 1995 to 2007, from 908 to 1,852 permits (County of Hawaii 2010, Table 16.7). The total number of housing units built nearly doubled from 1984 to 2007, from 39,164 to 77,650 units (County of Hawaii 2010, Tables 16.9 and 16.10). The pace of home construction was most rapid in the Puna and North Kona Districts, with increases of 105.6 and 67.7 percent, respectively, in the total number of housing units built from 1990 to 2000 (County of Hawaii 2010, Table 16.13). We expect residential and exurban construction for Hawaii County to continue at a similar pace in the foreseeable future as indicated by expected human population growth for Hawaii County and home construction for the island of Hawaii for the last three decades.

We also analyzed tax-map keys (TMKs) for the years 1996 and 2009 to better understand land subdivision on Hawaii and how this might relate to potential changes in Hawaiian hawk habitat (Nelson and Metevier 2010, pp. 1–3). Over this time period, the number of land parcels less than 1 acre (ac) in size increased almost three fold from 25,925 to 74,620 parcels. There was a greater than three-fold increase in the land area for parcels of this size, from 7,680 ac (3,107 hectares (ha), 31 sq km) to 24,458 ac (9,897 ha, 99 sq km); the latter is equal to approximately 1.7 percent of the hawk’s current range. Almost half of the subdivision activity occurred in the Puna region. Parcels of 1 acre or



less in size do not require a grubbing permit if grubbing (i.e., vegetation clearing) does not alter the general and localized drainage pattern with respect to abutting properties (County of Hawaii 2005a, p. 10-2).

Of the total land area in the Puna region, 46.2 percent is zoned for agriculture. Large areas of these lands were subdivided during the 1950s and 1960s, with lot sizes ranging from 0.2 to 6 ac (0 to 2 ha) (Punaguide 2013, p. 2). More than 51,000 ac (20,638 ha) (23 percent) of lands zoned for agriculture and other uses were subdivided from 1958 to 1973 in the Puna District south of the Hawaii Belt Road (Punaguide 2013, pp. 2–3). Almost all lands zoned for agriculture between Hilo Town and Volcano Village north of the Hawaii Belt Road were subdivided to some extent between 1996 and 2009 (Nelson and Metevier 2010, pp. 1–2). Many of the areas south of the Hawaii Belt Road are developed or are currently being developed as low density residential housing (Punaguide 2013, pp. 2–3).

Hunting of prey by Hawaiian hawk may be inhibited in areas with close standing trees that limit the hawk's ability to maneuver in flight, such as groves of nonnative strawberry guava (*Psidium cattleianum*), which dominates as much as 10 percent (37.5 sq mi, 97 sq km) of the forest area in conservation district lands in the Puna region (State of Hawaii 2010, p. 114). Because of its ability to form impenetrable groves of close standing trees, the invasion of large areas of native forests by strawberry guava poses a significant and serious threat to Hawaiian hawk habitat. Recent research suggests projected temperature and precipitation change in Hawaii will likely facilitate the spread of strawberry guava from its present distribution in lowland wet- and mesic-forest into higher elevation montane forests dominated by native species (Denslow 2008, p. 1). It is

projected that within 100 years strawberry guava, if not controlled, could invade native forests to elevations as high as 6,000 feet (ft) (1,800 meters (m)) (McDermitt 2009, p. 1; Price *et al.* 2009, slides 22-23). This expansion would have the potential to degrade up to 36 percent of the hawk's range to an elevation of 4,500 ft (1,500 m) (Gorresen *et al.* 2008, p. 25). Based on the above projections, we anticipate approximately 7 percent of current usable Hawaiian hawk habitat could be degraded in the next 20 years by the continued spread of strawberry guava into native forests. A biocontrol agent for strawberry guava, the Brazilian scale insect *Tectococcus ovatus*, was released in 2012 on Hawaii in two demonstration plots. Insects released have established and begun to reproduce and spread within individual trees, and the agent is planned to be released within native forest sites (Chaney and Johnson in HCC 2013, p.74). It is too early, however, to know what effect this may have on guava tree vigor and rate of spread.

The August 6, 2008, proposed rule (73 FR 45680, pp. 45684–45685) analyzed the potential threat to Hawaiian hawk habitat posed by the conversion of current agricultural lands to crops for biodiesel fuel production (Gorresen *et al.* 2008, p. 10). That analysis was based on a report prepared in 2006 for the State of Hawaii Department of Agriculture that identified agricultural lands on the island of Hawaii that would be suitable for such crop production (Poteet 2006, pp. 27–28). Construction and testing of biodiesel facilities is progressing, and one facility is now located on Hawaii Island. In addition to other information we request in the **Public Comments** section, below, we request new information on the actual conversion of agricultural land to crops for biodiesel fuel production, including former and current crop type and acreage.

Hawaiian hawks frequently nest in native ohia (*Metrosideros polymorpha*, an evergreen tree in the myrtle family). Within the past 5 years, landowners in lower Puna District have noticed an increased rate of ohia dieback (Friday and Friday 2013, entire), a phenomenon where trees affected show progressive dieback accompanied by browning of the leaves, reduction in leaf size, and death of all or part of the crown (Hodges *et al.* 1986, p. ii.). Ohia dieback occurs on Hawaii in all areas with ohia trees, and is attributed to several causes including volcanic emissions, wet soil conditions, displacement by native tree fern (*Cibotium* spp.), dense stands of ohia trees, and proximity to fault lines (Hodges *et al.* 1986, p. 4; Friday and Friday 2013, p. 2). Ohia dieback is localized, and large areas of healthy ohia forest often remain adjacent to dieback areas.

Although new information shows negative habitat trends due to urbanization and nonnative plant species invasion, efforts at habitat restoration that benefit the Hawaiian hawk are achieving success in several areas including reforestation at the Hakalau Forest National Wildlife Refuge, and fencing and ungulate removal at Puu Waawaa Forest Bird Sanctuary and parts of the State's Natural Area Reserve System (Gorresen *et al.* 2008, p. 26). Management goals for native forests damaged by ungulate browsing and grazing usually are to restore ecosystem structure to improve and maintain watershed values and promote native species diversity (TMA 2007, p. 26). The State of Hawaii's initiative, The Rain Follows the Forest, for example, identifies priority watersheds and outlines on-the-ground actions and projects required to sustain Hawaii's critical water sources (DLNR 2011, p. 1). Currently, only 10 percent of the priority watershed areas are protected; however, The Rain Follows the Forest seeks to double the amount of protected watershed areas, including some areas on Hawaii Island, in just 10 years. The Kohala

Watershed Partnership, Mauna Kea Watershed Alliance, and Three Mountain Alliance are currently conducting work to remove ungulates and improve or restore over 19,000 ac (7,689 ha) of forest area on Hawaii Island (DLNR 2011, p. 16).

In addition, forest restoration programs like the Hawaiian Legacy Reforestation Initiative, U.S. Department of Agriculture Forestry Program, and Hawaii's Forest Stewardship Program benefit Hawaiian hawk habitat through restoration of relatively intact native forests and reforestation of pasture areas. The focus of these programs over the last few decades has been the development of a native hardwoods forestry industry with native koa (*Acacia koa*) as the species of primary interest. Suitability of koa plantations for Hawaiian hawk foraging and nesting has not been studied, and hawk use of these areas may be variable, because koa plantations likely differ in their suitability as hawk habitat depending upon age of koa stands, stand density, and over-story characteristics related to harvest methods used.

Despite habitat concerns, as explained in our August 6, 2008, proposed rule, the Hawaiian hawk is resilient enough to maintain itself over time in a variety of habitat types including native, native-exotic, and exotic forest (Klavitter *et al.* 2003, p. 170).

### **Post-Delisting Monitoring Plan**

Section 4(g)(1) of the Act requires us, in cooperation with the States, to implement a monitoring program for not less than 5 years for all species that have been delisted due to recovery. The purpose of this post-delisting monitoring (PDM) is to verify that the species remains secure from risk of extinction after it has been removed

from the protections of the Act. The PDM is designed to detect the failure of any delisted species to sustain itself without the protective measures provided by the Act. If, at any time during the monitoring period, data indicate that protective status under the Act should be reinstated, we can initiate listing procedures, including, if appropriate, emergency listing under section 4(b)(7) of the Act. Section 4(g) of the Act explicitly requires cooperation with the States in development and implementation of PDM programs, but we remain responsible for compliance with section 4(g) and, therefore, must remain actively engaged in all phases of PDM. We also seek active participation of other entities that are expected to assume responsibilities for the species' conservation post-delisting.

The Service has developed a draft PDM plan for Hawaiian hawk in cooperation with the State of Hawaii Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW); the National Park Service (NPS); and the U.S. Geological Survey, Biological Resources Division (BRD). The PDM includes monitoring the Hawaiian hawk population every 5 years for 20 years and is designed to verify that the Hawaiian hawk remains secure from risk of extinction after its removal from the Federal List of Endangered and Threatened Wildlife. We made available the draft PDM plan on February 11, 2009 (74 FR 6853), with a 60-day comment period that closed April 13, 2009. With this document, we are again soliciting public comments and peer review on the draft PDM plan. All comments on the draft PDM plan from the public and peer reviewers will be considered and incorporated into the final PDM plan as appropriate.

The following is a brief summary of the draft PDM plan. Please see the plan, available at <http://www.fws.gov/pacificislands> or at <http://www.regulations.gov> under

Docket No. FWS–R1–ES–2007–0024, for more details. The PDM plan for the Hawaiian hawk covers a 20-year period, and will include abundance, distribution, and disease monitoring. Variable circular plot (VCP) surveys (Gorresen *et al.* 2008, pp. 10–11) for Hawaiian hawk will be conducted from March through July every 5 years, following the stations used in the 2007 surveys. Densities will be used to extrapolate population estimates, and differences in estimated hawk densities will be compared among years, regions, and habitats. All dead Hawaiian hawks found by field crews during VCP surveys or reported by the public will be salvaged and necropsied to determine the cause of death. Monitoring cooperators will report all dead, injured, and diseased birds to the Service’s Pacific Islands Fish and Wildlife Office, which will collate information on disease, cause of injury or death, location, date, and any other relevant data.

If monitoring reveals any cause for concern, such as reduced numbers of Hawaiian hawk or decreased range, a more comprehensive ground assessment of the monitored populations, or addition of extra monitoring sites, may be necessary. If monitoring concerns become sufficiently high, we will conduct a full status review of the species to determine if relisting is warranted.

## **Public Comments**

We intend that any final action resulting from the proposal will be based on the best scientific and commercial data available and will be as accurate and effective as possible. To ensure our determination is based on the best available scientific and commercial information, we request information on the Hawaiian hawk from

governmental agencies, native Hawaiian groups, the scientific community, industry, and any other interested parties. We request comments or suggestions on our August 6, 2008 (73 FR 45680), proposal to delist the Hawaiian hawk; our draft PDM plan; new information presented in this **Federal Register** document; and any other information.

Specifically, we seek information on:

(1) The species' biology, range, and population trends, including:

(a) Life history, ecology, and habitat use of Hawaiian hawk, including utilization of koa plantations and exurban areas;

(b) Range, distribution, population size, and population trends;

(c) Positive and negative effects of current and foreseeable land management practices on Hawaiian hawk, including conservation efforts associated with watershed partnerships and The Rain Follows the Forest initiative; patterns of land subdivision and development; effects on native forest of introduced plant species; conversion of land to biodiesel production, forestry, and diversified agriculture; and potential effects of biocontrol efforts on strawberry guava; and

(d) Potential effects of temperature and rainfall change on fire frequency and intensity and forest type and distribution.

(2) The factors, as detailed in the August 6, 2008, proposed rule (73 FR 45680), that are the basis for making a listing/delisting/downlisting determination for a species under section 4(a) of the Act, which are:

(a) The present or threatened destruction, modification, or curtailment of its habitat or range;

(b) Overutilization for commercial, recreational, scientific, or educational purposes;

(c) Disease or predation;

(d) The inadequacy of existing regulatory mechanisms; or

(e) Other natural or manmade factors affecting its continued existence.

(3) The draft post-delisting monitoring plan.

You may submit your information by one of the methods listed in **ADDRESSES**.

If you submit information via <http://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If you submit a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this personal identifying information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <http://www.regulations.gov>.

Information and supporting documentation that we receive and use in preparing the proposal will be available for you to review at <http://www.regulations.gov>, or you may make an appointment during normal business hours at the Service's Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

If you submitted comments or information previously on the August 6, 2008, proposed rule (73 FR 45680); the February 11, 2009, document that made available our draft PDM plan (74 FR 6853); or our June 5, 2009, publication announcing public hearings and reopening the proposal's comment period (74 FR 27004), please do not resubmit them. These comments have been incorporated into the public record and will be fully considered in the preparation of our final determination.



The Service will finalize a new listing determination after we have completed our review of the best available scientific and commercial information, including information and comments submitted during this comment period. In summary, the outcome of our review could result in: (1) a final rule to delist the Hawaiian hawk; (2) a final rule to downlist (i.e., reclassify to threatened) the Hawaiian hawk; or (3) a withdrawal of the 2008 proposed rule to delist the species.

### **References Cited**

A complete list of references cited is available on the Internet at <http://www.regulations.gov> and upon request from the Service's Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

### **Authors**

The primary authors of this document are staff of the Service's Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

**Authority**

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: February 4, 2014

Rowan W. Gould

Acting Director, U.S. Fish and Wildlife Service

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